OFFICE ACTION RESPONSE
Serial No. 10/612,079
Docket No. ORW01-GN003

In the Claims:

1-40. (CANCELLED)

41. (PREVIOUSLY AMENDED) A knee prosthesis comprising:

a tibial component to be mounted to a patient's tibia;

a femoral component to be mounted to a patient's femur, and to be pivotally coupled to the tibial component to form a prosthetic knee joint; and

a lining mounted to at least one of the tibial component and the femoral component in the prosthetic knee joint, and remote from native connective tissue, so that the lining is between the tibial component and the femoral component approximate a prosthetic intercondylar channel of the femoral component to supplement periarticular stability between the tibial component and the femoral component; and

the lining comprising a biologically reabsorbable lining material.

42. (PREVIOUSLY AMENDED) The knee prosthesis of claim 41, further comprising at least one fastener for mounting the lining to one of the tibial component and the femoral component, wherein the fasteners comprise a biologically reabsorbable fastener material.

43. (ORIGINAL) The knee prosthesis of claim 42, wherein the fastener material includes at least one, or an equivalent, of:

a poly-L-lactic acid material; and

collagen.

44. (ORIGINAL) The knee prosthesis of claim 42, wherein the fasteners are taken from a group consisting of:

screws;

snaps;

clips;

keyways; and

rivets.

45. (ORIGINAL) The knee prosthesis of claim 41, wherein the lining material includes at least one, or an equivalent, of:

extra cellular matrices (ECMs);
poliglecaprone 25;
polydioxanone;
surgical gut suture (SGS);
gut;
polyglactin 910;
human autograft tendon material;
collagen fiber;
poly-L-lactic acid (PLLA);
polylactic acid (PLA);
polylactides (Pla);
racemic form of polylactide (D,L-Pla);
poly(L-lactide-co-D,L-lactide);
polyglycolides (PGa);
polyglycolic acid (PGA);
polycaprolactone (PCL);
polydioxanone (PDS);
polyhydroxyacids; and
resorbable plate material.

46. (ORIGINAL) The knee prosthesis of claim 45, wherein the extra cellular matrices (ECMs) includes at least one, or an equivalent, of:

porcine small intestine submucosa (SIS);
xenogeneic small intestine submucosa (xSIS);
urinary bladder submucosa (UBS);
laminated intestinal submucosa; and
glutaraldehyde-treated bovine pericardium (GLBP).

47. (CANCELLED)

48. (PREVIOUSLY AMENDED) The knee prosthesis of claim 47, wherein the lining material is to be substantially absorbed and replaced by the patient's tissue within approximately 6 months after implantation.

49. (ORIGINAL) The knee prosthesis of claim 41, wherein at least one surface of the lining approximates a contour of a surface of at least one of the tibial component and the femoral component to which the lining is mounted.

50. (PREVIOUSLY AMENDED) The knee prosthesis of claim 41, wherein at least a portion of the lining is conforming to the topography of at least one of the tibial component and the femoral component to which the lining is mounted.

51. (ORIGINAL) The knee prosthesis of claim 41, wherein the lining is mounted to the tibial component and includes an outer surface that approximates a contour of a surface of the femoral component most likely coming into contact therewith.

52. (ORIGINAL) The knee prosthesis of claim 51, wherein the contour of an outer surface of the femoral component approximates an inner surface of at least one of a prosthetic medial condyle element and a prosthetic lateral condyle element partially defining the prosthetic intercondylar channel.

53. (ORIGINAL) The knee prosthesis of claim 41, wherein the lining is mounted to the femoral component and includes an outer surface that approximates a contour of a surface of the tibial component passing into the prosthetic intercondylar channel.

54. (ORIGINAL) The knee prosthesis of claim 41, wherein the lining material is loaded with at least one of a tissue promotion agent, a clotting agent, and an antibiotic agent.

55. (ORIGINAL) The knee prosthesis of claim 54, wherein the lining material is loaded with a clotting agent that includes concentrated platelets.

56. (ORIGINAL) The knee prosthesis of claim 54, wherein the lining material is loaded with an antibiotic agent that includes gentamicin.

57. (PREVIOUSLY AMENDED) The knee prosthesis of claim 41, wherein:

the tibial component includes a stabilizing post at its proximal end to be received within the intercondylar channel of the femoral component; and

the lining is mounted to at least one of the stabilizing post and a surface of the intercondylar channel.

58. (ORIGINAL) The knee prosthesis of claim 41, wherein the lining material is loaded with at least one of connective tissue stem cells and connective tissue stem cell progenitors.

59. (ORIGINAL) The knee prosthesis of claim 58, wherein the connective tissue stem cells and connective tissue stem progenitors are taken from the group consisting of: fibroblastic colony-forming cells, fibroplast colony-forming units (CFU-F), bone marrow stromal cells, mesenchymal stem cells (MSC), and vascular pericytes.

60. (ORIGINAL) The knee prosthesis of claim 41, wherein the lining material is loaded with a growth stimulating factor.

61. (ORIGINAL) The knee prosthesis of claim 60, wherein the growth stimulating factor is taken from the group consisting of: growth factor beta (GFB-β), basic fibroblast growth factor (bFGF), fibroblast growth factor (FGF), epidermal growth factor (EFG), transforming growth factor-β1 (TGF-β1), vascular endothelial growth factor (VEGF), connective tissue growth factor (CTGF), platelet-derived growth factor (PDGF), direct-mediated gene transfer, fibroblast-mediated gene transfer, myoblast-mediated gene transfer,TGF-β gene family, adenovirus-mediated gene transfer, recombinant adenovirus-

induced tendon adhesion formation, BMP-12, bone morphogenetic protein-2 gene transfer, growth and differentiation factor-5 (GDF-5), and insulin like growth factor (IFG).

62. (ORIGINAL) The knee prosthesis of claim 41, wherein the lining material is loaded with at least one of hematopoietic stem cells and hematopoietic stem cells progenitors.

63. (PREVIOUSLY AMENDED) A knee prosthesis comprising:

a femoral component to be mounted to a patient's femur;

a tibial component to be mounted to the patient's tibia, the tibial component including a stabilizing post at its proximal end to be received within a prosthetic intercondylar channel of the femoral component to form a prosthetic hinge-type joint coupling; and

a lining mounted to at least one of the stabilizing post and an inner surface of the femoral component at least partially defining the prosthetic intercondylar channel, and remote from native connective tissue, to, at least temporarily, supplement periarticular stability between the stabilizing post and the prosthetic intercondylar channel;

the lining comprising a biologically reabsorbable lining material.

64. (ORIGINAL) The knee prosthesis of claim 63, further comprising at least one fastener for mounting the lining to at least one of the stabilizing post of the tibial component and the inner surface of the femoral component at least partially defining the prosthetic intercondylar channel, wherein the fastener comprises a biologically reabsorbable fastener material.

65. (ORIGINAL) The knee prosthesis of claim 63, wherein the lining material includes at least one, or an equivalent, of:

extra cellular matrices (ECMs);

poliglecaprone 25;

polydioxanone;

surgical gut suture (SGS);

gut;
polyglactin 910;
human autograft tendon material;
collagen fiber;
poly-L-lactic acid (PLLA);
polylactic acid (PLA);
polylactides (Pla);
racemic form of polylactide (D,L-Pla);
poly(L-lactide-co-D,L-lactide);
polyglycolides (PGa);
polyglycolic acid (PGA);
polycaprolactone (PCL);
polydioxanone (PDS);
polyhydroxyacids; and
resorbable plate material.

66. (ORIGINAL) The knee prosthesis of claim 65, wherein the extra cellular matrices (ECMs) includes at least one of:

porcine small intestine submucosa (SIS);
xenogeneic small intestine submucosa (xSIS);
urinary bladder submucosa (UBS);
laminated intestinal submucosa; and
glutaraldehyde-treated bovine pericardium (GLBP).

67. (PREVIOUSLY AMENDED) The knee prosthesis of claim 63, wherein the lining material is to be substantially absorbed by a patient's body after implantation and to be substantially replaced by the patient's tissue.

68. (PREVIOUSLY AMENDED) The knee prosthesis of claim 67, wherein the lining material is to be substantially absorbed and replaced by the patient's tissue within approximately 6 months after implantation.

69. (ORIGINAL) The knee prosthesis of claim 63, wherein the lining material is loaded with at least one of a tissue promotion agent, a clotting agent, and an antibiotic agent.

70. (ORIGINAL) The knee prosthesis of claim 69, wherein the lining material is loaded with a clotting agent that includes concentrated platelets.

71. (ORIGINAL) The knee prosthesis of claim 69, wherein the lining material is loaded with an antibiotic agent that includes gentamicin.

72. (ORIGINAL) The knee prosthesis of claim 63, wherein the lining material is loaded with at least one of connective tissue stem cells and connective tissue stem cell progenitors.

73. (ORIGINAL) The knee prosthesis of claim 72, wherein the connective tissue stem cells and connective tissue stem progenitors are taken from the group consisting of: fibroblastic colony-forming cells, fibroplast colony-forming units (CFU-F), bone marrow stromal cells, mesenchymal stem cells (MSC), and vascular pericytes.

74. (ORIGINAL) The knee prosthesis of claim 63, wherein the lining material is loaded with a growth stimulating factor.

75. (ORIGINAL) The knee prosthesis of claim 74, wherein the growth stimulating factor is taken from the group consisting of: growth factor beta (GFB-β), basic fibroblast growth factor (bFGF), fibroblast growth factor (FGF), epidermal growth factor (EFG), transforming growth factor-β1 (TGF-β1), vascular endothelial growth factor (VEGF), connective tissue growth factor (CTGF), platelet-derived growth factor (PDGF), direct-mediated gene transfer, fibroblast-mediated gene transfer, myoblast-mediated gene transfer,TGF-β gene family, adenovirus-mediated gene transfer, recombinant adenovirus-induced tendon adhesion formation, BMP-12, bone morphogenetic protein-2 gene

transfer, growth and differentiation factor-5 (GDF-5), and insulin like growth factor (IFG).

76. (ORIGINAL) The knee prosthesis of claim 63, wherein the lining material is loaded with at least one of hematopoietic stem cells and hematopoietic stem cells progenitors.

77-104. (PREVIOUSLY CANCELLED)

105. (PREVIOUSLY AMENDED) A knee prosthesis comprising:

a tibial component to be mounted to a patient's tibia;

a femoral component to be mounted to a patient's femur, and to be pivotally coupled to the tibial component to form a prosthetic knee joint; and

a biologically reabsorbable lining being selectively attachable to at least one of the tibial component and the femoral component in the prosthetic knee joint so that the lining is mounted between the tibial component and the femoral component approximate a prosthetic intercondylar channel of the femoral component to supplement periarticular stability between the tibial component and the femoral component, whereby repositioning or degradation of the lining does not appreciably hinder the functionality of the femoral component and the tibial component.